REMARKS

Claims 43 and 45-84 are pending in this application. Claims 44 has been cancelled, and claims 43, 60-63, 68, 77-81 and 84 have been amended, by this Amendment.

The Office Action dated October 5, 2005 objected to the specification as failing to provide proper antecedent basis for the subject matter in claims 43, 44, 46, 47, 60-63, 65, 66 and 77-78. The Office Action also rejected claims 43-84 as being anticipated by prior art under 35 U.S.C. 102(b).

Claim Objections

The grounds for the objection to claims 43, 44, 46, 47, 60-63, 65, 66 and 77-78 is set forth in part 2 on pages 4-5 of the Office Action. Specifically, the term "capable" is objected to in claims 43, 60-63 and 77-78; and various language related to the allocation of time slots is objected to in claims 43, 44, 46, 47, 65 and 66.

Applicants have amended claims 43, 60-63 and 77-78 such that the claims, as amended, do not use the term "capable"; and have amended claims 43 and 44 to clarify the language related to the allocation of time slots. Various other informalities have also been corrected in the claims. Applicants respectfully submit that the objections have been overcome by the claim amendments.

Applicants have not amended claims 46, 47, 65 and 66 as suggested in the objections. Original claims 46 and 65 state that the number of time slots allocated to circuit switched communications is half of the number of time slots allocated to packet switched communications. Original claims 47 and 66 state that the number of time slots allocated to circuit switched communications is a quarter of the number of time slots allocated to packet switched communications. The suggested amendments would cause the claims to state that packet switched and circuit switched communications are allocated the same number of time slots. Applicants thus decline to make the suggested amendments since they do not merely clarify the claims and would change the scope of the claims.

Anticipation Rejection

The grounds for the anticipation rejection of claims 43-84 is set forth in part 4 on pages 5-15 of the Office Action. Specifically, the rejection asserts that the claims are anticipated by the preferred embodiment in U.S. Patent No. 6,084,865 issued to Dent. Applicants respectfully traverse the

rejection because it fails to establish a prima facie case that the preferred embodiments in Dent include each and every one of the combination of features recited in the claims.

For example, each one of independent claims 43 (as amended) and 78 recites features relating to full rate and half rate packet switched connections. Claim 43 has been amended to recite the features previously recited in dependent claim 44 (now cancelled). Each one of independent claims 43 and 78 recites one mode of operation "in which a full rate data channel for packet switched communication is defined by an allocation to said full rate data channel of corresponding time slots in each frame" and another mode of operation "in which two half rate data channels for packet switched communications are defined by an allocation to each of said two half rate data channels of an equal number of corresponding time slots of frames in each superframe." Independent claim 63 recites a mode of operation in which "a data channel for circuit switched communications is defined by the allocation to that channel of corresponding time slots of some of the frames of each superframe", and "a data channel for packet switched communications is defined by the allocation to that channel of corresponding time slots of some of the frames of each superframe." These features aim to maximize utilization of the available transmission bandwidth by increasing the flexibility with which connections can be allocated to data channels.

In contrast, the preferred embodiments in Dent do not include packet switched communications. It therefore follows that Dent does not include the two modes of operation for full rate and half rate packet switched data channels as recited in claims 43 and 78. In particular, in the preferred embodiments in Dent, it does not occur that some timeslots in corresponding frames of a superframe are allocated to a circuit switched channel while others of the timeslots are allocated to a packet switched connection.

The rejection refers to segmenter 161 in Fig. 9; col. 2, lines 8-27, and col. 18, lines 44-60, of Dent as disclosing the above features in claims 44 (now claim 43), 63 and 78. However, segmenter 161 "groups speech bits into code words for transmission and may use knowledge of which coded bits are more percetually significant than others to effect optimal grouping" (see col. 19, line 60, to col. 20, line 10). The segmenter 161 therefore is not a packet switched connection, nor does it convert a circuit switched PSTN connection into a packet switched connection, but merely groups the data bits into code words for efficient transmission.

Claims 43 and 63

In addition to the features discussed above related to packet switched connections and recited in all of the pending claims, claims 43 and 63 additionally recite that circuit switched connections are allocated to corresponding time slots of the frames of each superframe while packet switched connections are allocated to others of the frames of each superframe. Thus, the available timelsots that would conventionally be allocated to a single full rate connection are divided between circuit switched and packet switched connections. Packet switched connections have different data rate requirements, with some requiring faster rates than others. However, for many packet switched connections, a part rate data channel can provide a sufficiently high data rate. Furthermore, for packet switched connections allocated to part rate data channels there is no requirement for both the originating and terminating parties to support a specific part rate codec. Therefore, the features recited in claims 43 and 63 for maximizing utilization of the available transmission bandwidth may be advantageously realized by dividing the timeslots of a full rate connection between part rate circuit switched and packet switched connections.

Claim 78

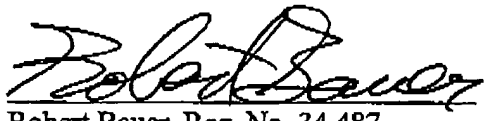
Claim 78 recites packet switched connections with full and half rate channels, and does not recite circuit switched communications. The descriptions in Dent relate only to circuit switched communications and do not not suggest the recited features. A circuit switched connection is typically assigned one or more physical channels and occupies the channels for the duration of the connection. On the other hand, a packet switched connection is generally assigned one or more physical channels, which it shares with other packet switched connections. Although there is a direct link between using half rate channels and increased spectral efficiency in circuit switched communications, there is no such direct link between channel rate and overall spectral efficiency in packet switched communications because more than one packet switched connection may be assigned to any particular data channel. In other words, decreasing the data rate of a channel for packet switched connections might simply reduce the number of packet switched connections assigned to that particualr channel rather than increasing spectral efficiency.

Conclusion

Applicants submit that all of the pending claims, as amended, are in condition for allowance. A Notice of Allowance is respectfully requested.

The Commissioner is hereby authorized to charge any deficiency, or to credit any overpayment, to the undersigned attorney's Deposit Account No. 10-0100 (Dkt. No. NOKIA.4019US).

Respectfully Submitted,



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